

Content analysis → analysing the content of secondary data by creating a code and sample method. Eg, every 2nd page, tallying the number of gender stereotypes.

Thematic analysis → converts qualitative data into quantitative data by creating a category/code and tallying the number of times these appear within the data. Eg dream themes.

Alternative hypothesis → A testable statement about the relationship / difference / association between 2+ variables.

Null hypothesis → An assumption that there is no relationship / difference / association. Nothing is going on. When conducting research, we aim to reject our null hypothesis (**Falsifiability**)

Directional → My hypothesis directly predicts the direction of the results (X will have a positive effect on Y)

Non-directional → my hypothesis states there is a difference but doesn't state which way (X and Y will have a difference)

One tailed → You're using a directional hypothesis.

Two-tailed → you're using a non-directional hypothesis.

RELIABILITY → how **consistent** is the data? Can it produce the same results on different occasions?

TYPE 1 ERROR → False positive. I've rejected the null hypothesis when I should have accepted it. You believe you have found a genuine positive effect when there isn't on. Eg, a male being pregnant because they have all the symptoms.

TYPE 2 ERROR → You fail to reject the null hypothesis (you accept it) and believe there isn't a negative effect when there is on. A pregnant female being told she's not pregnant because of other factors.

IV → What you're manipulating. The conditions/trials.

DV → What you're measuring. It needs to be operationalised so it can be measured clearly.

Confounding → A variable which can change the DV but can't always be controlled (mood) but can cause confusion in the results (time of day).

Extraneous → Aspects which you try to control – time of day, light, temperature of room.

Inter-observer reliability → When another observer repeats the test and compares their results with yours to see if you have high agreement (1) or low (0) this is a kappa score. To improve this score you can include/amend behaviour categories.

SAMPLING

Opportunity → Use PPs that are the most convenient or most available. Eg, students in a school.

JOURNAL REFERENCE

- Authors name, date, title of article, *journal title*, volume (issue number)

BOOK REFERENCE

- Authors name, date, *title of book*, place of publication, publisher.

Test-retest → Giving the same group of PPs the same test at a different time and assessing the score similarity. This can be improved by making your test question detailed and specific.

Standardisation → to ensure that each procedure is robust and repeated consistently across trials. This will improve reliability.

Random → names/numbers out of a hat.

Stratified → subgroups of the population are identified, and a proportionate amount is selected. Eg 2 from Y7, 2 from Y8 etc.

Systematic → Every 5th, 7th, 10th person from a list of people. Eg a phonebook.

Volunteer → Advertise in a newspaper/notice board and wait for people to volunteer.

DESIGN A STUDY QUESTION → Answer the BULLET POINTS and JUSTIFY your choices / KEEP IT SIMPLE.

VALIDITY → How **accurate** is your data? Are you measuring what you intended?

EXPERIMENTAL DESIGN

Repeated measures → All PPs do each condition. BUT this could cause an **ORDER EFFECT** so we need to **COUNTERBALANCE** (ABAB or ABBA).

Independent → Separate groups do separate conditions and we need to **RANDOMLY ALOCATE** PPs to groups.

Matched Pairs → 2 groups of PPs who are matched on a characteristic, typically the DV. It's best to conduct a **PILOT STUDY** to consider which variables need controlling.

Calculated value → The number they give you in the exam. Their **CALCULATED** score.

Critical value table → The table you plot the score into.

ALWAYS ASSUME 0.05 UNLESS TOLD.

DESCRIPTIVE STATISTICS

Measure of central tendency provide averages or information about the 'middle' of a set of data:

- **Mean** – add all the data, divide by the number of values. Can only be used with ration and interval data.
- **Mode** – Most frequent data. Used with nominal data.
- **Median** – Middle values of an ordered list. Used with ordinal data.

Ecological → the ability to generalise the research results to different environments and achieve the same results.

Mundane realism → how realistic are the tasks to the real world. Eg counting backwards in 3s.

SINGLE BLIND → The PP is not aware of the aims of the research condition they are receiving so they can't seek cues or react.

DOUBLE BLIND → The researcher and PP are not aware which condition the pp is receiving, so both researcher and PP can't react to cues or provide prompts.

Measure of dispersion provides information about the spread of data.

- **Range** – the distance between the top and bottom values in data.
- **Standard deviation** – precise measure of spread which measures the average distance between each data item above and below the mean.

Temporal → the ability for the research results to be generalised to different time periods. Eg Asch.

PEER REVIEW → Specialists in the field assess the scientific work produced by others to assess the quality and accuracy of their research.

ETHICS - Can Do Can't Do With Pps

Population → Can the research results be generalised to other samples of participants.

TYPES OF DATA:

Primary / Secondary / Qualitative / Quantitative / Meta-analysis


- **Nominal** → named categories
- **Ordinal** → data that can be ordered.
- **Interval** → Data with equal measurements in-between each value and that can go below 0.

5 FEATURES OF A SCIENCE:

1. **Empirical methods** – observable and quantitative data.
2. **Objectivity** – no bias or opinions involved.
3. **Replicability** – does it produce the same results with different people?
4. **Theory construction** – general principals, laws or classifications can be made.
5. **Hypothesis testing** – test and refine / theory and test.

Concurrent → to compare your research results to other similar results in the field and assessing if they're similar findings.

Face → to extent in which the test measures what it claims to measure Eg, IQ test – intelligence or memory?

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|  | Testing difference (unrelated) Independent Groups | Testing difference (related) Repeated Measures / Matched Pairs | Testing association or correlation |
| Nominal | Chi-Squared test | Sign test | Chi-Squared test |
| Ordinal | Mann-Whitney | Wilcoxon | Spearman's rho. |
| Interval | Unrelated t-Test <i>(parametric)</i> | Related t-Test <i>(parametric)</i> | Pearson's r <i>(parametric)</i> |

Falsifiability → always aiming to prove your hypothesis wrong.

Paradigm → a set of ideas which can change over time due to a paradigm shift.

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